



Problems with permits to work



The Club continues to see reports of serious accidents, many involving 'hot work', which should have been prevented if proper permit to work procedures had been followed. In some instances the primary causative mistake has been an 'execution' failure in that the work was not conducted in accordance with the permit to work. However, in other cases the problem has been a 'planning' failure, where there has been inadequate risk assessment by the responsible officer prior to the issuance of the permit.

A recently reported accident is an example of the latter problem. In that case, a ship's welder was badly burned while conducting planned maintenance on the hatch cover operating system. The welder had replaced several lengths of hydraulic pipe in the system during the course of the voyage, using oxygen-acetylene equipment to cut corroded flange bolts in the process. Each time the cutting equipment was used, the responsible officer first conducted a risk assessment and issued a permit to work. This had included an instruction that the welder close an

isolation valve between the hydraulic pumps and the operating controls, to prevent the system being inadvertently pressurised. Apparently, the officer had been confident there was no significant risk of ignition to the hydraulic oil in the line.

In contrast to the position at the time of the accident, the welder's earlier work had been performed while the hatch covers were closed. However, on the day that his injuries were sustained, the hatch cover had been 'tented' to provide natural light to other crew members working in the hold. As a result, the load on the hydraulic system had pressurised the oil in the section of line to be replaced, before the welder followed the responsible officer's usual instruction to close the isolation valve.

And as the welder cut through a bolt in the flange, hydraulic oil escaped from the line under pressure, creating an oil mist which exploded on contact with the oxygen-acetylene flame. The welder suffered severe burns over forty per cent of his body. The subsequent inquiry indicates that the officer who signed the permit to work did not fully appreciate that hydraulic oil escaping under pressure from the line could form an explosive mist. Moreover, neither he nor the supervising officer appreciated that tenting the hatch covers would pressurise the system or that the closure of the isolation valve would provide no protection if the system was already pressurised.

This accident serves as a reminder that the risk assessment undertaken prior to the issuance of a permit to work should be carried out by suitably experienced personnel, using specialist advice if necessary.

Zero tolerance by US CBP

There has been a marked increase in recent months in enforcement action by US Customs & Border Protection (CBP), much of which has resulted in delays to vessels, the threat and/or imposition of heavy penalties, and costly crew movements and repatriation. In particular, the authorities have now adopted a zero tolerance-type programme in connection with crew immigration issues.

Essential requirements of the CBP involve (1) absolute gangway watch, (2) ensuring that all those detained on board do not step off the gangway, and (3) crew members allowed ashore must have shore passes with them at all times. In order to assess and enforce compliance, the CBP has carried out ship visits, conducted covert surveillance of ships in port, and interviewed seafarers ashore. Where the CBP identifies a breach, it is likely to impose a fine and may require the vessel to pay for a local security firm to assume control of the gangway watch. Members are asked to ensure that all masters and crew are fully aware of the correct procedures to be followed on board and when going ashore in US ports.

(Eastham, Watson, Dale & Forney, Houston)

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Pass at a safe distance



The Club has recently received news of a number of collisions between merchant ships and vessels engaged in fishing. A common feature of these casualties appears to be the passing of fishing craft at an unsafe distance. In one case, the skipper of a trawler died as a result of a collision when his vessel was struck by a large laden bulk carrier. The bulker's officer of the watch

(OOW) had detected, both visually and by radar, the presence of a group of fishing boats on his starboard bow at a distance of at least ten nautical miles. These boats were crossing ahead, but the OOW quickly established that there was a risk of collision with at least one of the group.

There was ample sea room to starboard to make a bold alteration of course, which would have left all of the fishing boats well clear to port. However, the OOW instead made only a small alteration of course to starboard which gave a closest point of approach to the nearest fishing vessel of only half a nautical mile. Of course, apart from the allowance to be made for the

distance between the radar scanner and the bow of the ship, that projected passing distance was dependent upon both vessels maintaining their course and speed. Unfortunately, the developing close quarters' situation was not monitored properly after an inadequate watch handover on the bulk carrier. Despite the relieving OOW's last-minute hard-a-starboard manoeuvre, the bulk carrier struck the fishing vessel, causing it to capsize and quickly sink.

The investigating authority emphasised the need for navigating officers in similar circumstances to make an early and substantial alteration of course to achieve a safe passing distance - and to monitor the effectiveness of the alteration until the other vessel is finally past and clear.

Nickel ore liquefaction problems

Unprocessed nickel ore with relatively low nickel content has been shipped for many years from Indonesia and the Philippines on relatively short voyages to Australia and Japan.

However, the recent high price of nickel ore has made the carriage of this ore economically viable on significantly longer ocean passages. But the extended passage times have revealed its dangerous propensity to liquefy and several vessels have experienced serious stability problems as a result.

Essentially, the ore is mined, stored in open stockpiles and then shipped. The unprocessed ore is not

homogeneous in form, and wide ranges of particle size are common within a single shipment. Commonly, the ore presented for shipment has a high proportion of very fine clay-like particles and a moisture content of up to thirty-four per cent by mass. As with many finely particulate materials, this ore can liquefy and shift if the moisture level is too great.

The IMO Bulk Code requires shippers to provide the carrier with appropriate certification of the consignment's Transportable Moisture Limit (TML) and actual moisture content. If the moisture content is below the TML, the material is deemed safe for carriage.

In order to establish the TML, the Flow Moisture Point (FMP) of the consignment must first be measured. A significant problem with testing the unprocessed ore for the FMP is that taking representative samples is made very difficult by the lack of homogeneity. In a recent case, different laboratories obtained widely differing results on samples supposedly representing the same cargo.

A further complication is that rainfall on the open stockpiles can increase the actual moisture content after samples are taken. The difficulty in establishing its safety for shipment is such that members should exercise great caution if asked to load this cargo.

(Brookes, Bell, Jarret, Kirman)



Maintaining ladders



S *topLoss 41* contained a warning about the consequences of failing to correctly rig pilot ladders. But failing to maintain them properly can have equally serious consequences, as illustrated by an accident recently drawn to the attention of the Club. During a transfer in the port of

Dublin, the side ropes of a pilot ladder gave way, and the pilot fell back into the pilot cutter, together with a section of the ladder. Fortunately, the pilot on this occasion was not seriously injured, but a subsequent port state investigation found that both the port and starboard pilot ladders

were permanently rigged and open to damage from the weather, the action of the seas and the sun, in contravention of SOLAS Chapter V Regulation 23.

The failure was found to have been caused by a significant loss of strength in the ropes used in the ladder construction, caused by external abrasion. The position of the failures in each leg suggested that flex fatigue had also contributed to loss of strength.

The general appearance of the failed ladder suggested that it had been in service for a considerable period of time, and there was no evidence of regular inspection as required under SOLAS.

Members are reminded that it is essential to ensure that pilot ladders are inspected regularly, and properly stowed when not in use.

Dealing with stowaways

A recent case in South Africa illustrates the very serious difficulties that can arise in the handling of stowaways and the importance of closely following all the related IMO guidelines.

Seven stowaways hid on board a vessel at Mombasa. The stowaways were discovered during the voyage to Durban. Although the crew followed the relevant IMO guide-lines in other respects, the master failed to notify the owner of the presence of the stowaways, and the crew then broke a cardinal rule in allowing the

stowaways to befriend them. When the vessel arrived at Durban, the stowaways were not declared to the port authorities, and the crew allowed the stowaways to disembark by means of a rope rigged into the water on the offshore side of the vessel. Two of the stowaways drowned as they tried to swim across the harbour. The five surviving stowaways were apprehended and, when questioned by the authorities, maintained that they had been forced off the ship. The master and three crew members were arrested and charged with manslaughter. In the end, they were heavily fined, and received suspended prison sentences. Following this incident, police now attend the arrival

of all vessels at Durban. If stowaways are found on board, they are questioned about their time and point of embarkation, and about how they have been treated by the crew. Masters and crew should at all times follow the IMO guidelines for handling stowaways, and masters should properly document all actions taken.

(P&I Associates Pty Ltd, Durban).

● Members are also referred to the London Club-sponsored video, 'Coping With Stowaways', which provides helpful guidance on this subject and which is available at a discount to Club members from Videotel at: www.videotel.com



Don't forget to ventilate at night

Previous editions of *StopLoss* have carried reminders of the need to ventilate cargo spaces properly in order to minimise 'ship's sweat', which can cause condensation damage to sensitive cargoes.

The Club has seen a number of recent cases involving claims for condensation damage to cargoes capable of giving off moisture, such as certain grades of cocoa beans or rice.

The cargo interests have asserted that the likelihood of moisture release from the cargo into the hold atmosphere was such that the cargo spaces should have been continuously ventilated, night or day, in fair weather.

And in some of these cases they have argued that a master's decision to close the ventilation to the holds at night in fair weather amounts to a failure to care properly for the cargo on passage.

Efforts to counter such arguments can be premised on the practical difficulties arising from the need to protect the cargo if the ship meets unexpected heavy rain or bad weather. The crew are expected to be able to close the vents at very short notice in such circumstances. But there will be times when the



numbers of crew available to respond rapidly to such changes in the weather will be reduced, while a deterioration in conditions can sometimes be more difficult to detect at night.

And it seems that it is with a view to trying to circumvent such difficulties that masters have, on occasion, elected to close ventilation at night, leaving those on watch to concentrate on navigational and collision avoidance duties.

However, the recent cases emphasise that courts are unlikely to be sympathetic to defences based on such arguments, and are likely to place a very heavy evidential burden on carriers to explain why extra crew could not be made available to care for the cargo in the way required.

And members should accordingly remain aware of the importance of proper cargo ventilation.

Legal consequences of deviations

Intertanko recently issued a useful review of some of the important legal issues that can arise under charter parties and bills of lading when a vessel deviates from the normal geographic route, to replenish bunkers. Under a charter party, such a deviation may put owners in breach of their obligations to proceed to the loading port or to prosecute the voyage with the utmost despatch.

In the case of a laden voyage, it may potentially put owners in breach of their obligations to the cargo interests under the bills of lading issued. As a result, defences to cargo claims may be lost and P&I cover prejudiced.

A general rule is that, if a deviation follows a universal custom, it will not usually be unlawful. However, there is real scope for uncertainty over what is customary, particularly in the case of bills of lading where the different legal systems to which any cargo claim may be subject may very well take conflicting views.

Accordingly, the position of owners should be strengthened – in relation to the risks associated with deviations generally - by careful consideration of the terms of their bills of lading and other contracts of carriage, with a view to including suitable liberty provisions, permitting the selection of alternative routes to the usual geographical course.

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on behalf of The London Steam -Ship Owners' Mutual Insurance Association by A. Bilbrough & Co. Ltd.,
50 Leaman Street, London E1 8HQ, UK.
Tel: +44 (0) 20 7772 8000
Fax: +44 (0) 20 7772 8200
E-mail: london@a-bilbrough.com
www.lssso.com

EDITED BY

Chris Hewer,
Merlin Corporate Communications,
11 Kingsland Court,
Three Bridges Road,
Crawley RH10 1HL, UK
Tel: +44 (0) 1293 55 00 44
Fax: +44 (0) 1293 55 04 04
E-mail: wizard@merlinco.com

PRINTED BY

Stuart Vaux Associates,
Chiltern Lodge,
38 Clifton Road, Amersham,
Buckinghamshire
HP6 5PP, UK.
Tel: +44 (0) 1494 726593
Fax: +44 (0) 1494 726593
E-mail: sales@svaux.com